

temperature from martensitic to austenitic less than body temperature while the martensitic alloy portion has a transition temperature from martensitic to austenitic substantially greater than body temperature, the martensitic alloy portion and superelastic austenitic alloy portion being constructed, arranged and associated with respect to each other in comprising the stent such that the two alloy portions act in combination to allow, upon transformation of the first portion from austenitic to martensitic at a temperature below the transition temperature, constraint of the stent to a deployment diameter smaller than the predetermined fabricated diameter and upon transformation of the first portion from martensitic back to austenitic to self-expand the stent back to about the predetermined fabricated diameter at temperatures in excess of the transition temperature of the first portion, the shape memory of the superelastic austenitic first portion tending to form the stent to a larger diameter due to its shape memory but being restrained therefrom by the second martensitic alloy portion whereby the first portion can be deformed by external force without plastic deformation along with the second portion to an enlarged stent diameter beyond that of the self-expanded diameter. --

Please amend claims 1-3, 5-6, 9, 11, 13, 15 and 16 as follows:

-- 1.(amended) [As a] A tissue supporting device comprising a constrainable, self-expanding member of generally tubular shape, said device further comprising a first portion of a resilient self-expandable material and a second portion of a deformable and substantially less resilient material than the first portion, said second portion being deformable by an external force but being non-self-expandable; the member being constrainable to a deployable diameter in preparation for insertion into a patient; the member being self-expanding when unconstrained to an initially deployed diameter due to the resiliency of the first portion; the first and second portions being so associated with respect to each other and the member such that the device may be [further] deformed due to the deformability of the second portion by an external force to radially enlarge the member to an enlarged fully deployed diameter for providing permanent tissue support.

2.(amended) The device of claim 1 wherein the first and second portions are

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comprised of metal.

3.(amended) The device of claim 2 wherein the first portion is comprised of a spring metal and the second portion is comprised of an annealed metal.

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5.(amended) The device of claim 1 wherein the first and second portions are comprised of a shape memory alloy.

6.(amended) The device of claim 5 wherein the first and second portions are comprised of austenite and martensite, respectively.

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9.(amended) The device of claim 1 wherein the first component is comprised of a nitinol alloy.

A5
11.(amended) The tissue supporting device of claim 1 wherein the constrainable, self-expanding member of generally tubular shape comprises a permanent self-expanding stent for providing permanent tissue support, said stent having a [generally tubular] body of a predetermined fabricated diameter; wherein at normal body temperatures the first portion is comprised of a shape-memory, superelastic austenitic alloy portion and the second portion is comprised of a shape-memory, martensitic alloy portion; the superelastic austenitic alloy portion having a transition temperature from martensitic to austenitic less than body temperature while the martensitic alloy portion has a transition temperature from martensitic to austenitic substantially greater than body temperature, the martensitic alloy portion and the superelastic austenitic alloy portion being constructed, arranged and associated with respect to each other in comprising the stent such that the two alloy portions act in combination to allow, upon transformation of the first portion from austenitic to martensitic at a temperature below the transition temperature, constraint of the stent to a deployment diameter smaller than the predetermined fabricated diameter and upon transformation of the first portion from martensitic back to austenitic to self-expand the stent back to about the predetermined fabricated diameter at temperatures in excess of the transition temperature of the first portion, the shape memory of the superelastic austenitic first portion tending to form the stent to a larger diameter due to its shape memory but being restrained therefrom by the second

*AS
CMT*

martensitic alloy portion whereby the first portion can be deformed by external force without plastic deformation along with the second portion to an enlarged stent diameter beyond that of the self-expanded diameter.

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13.(amended) The stent of claim 11, said stent being comprised of an alloy, and
wherein the first and second portions are different phases in [an] the alloy.

14.(not amended) The stent of claim 11 wherein the first and second portions are in
the form of longitudinally arranged interconnected alternating rings.

15.(amended) The stent of claim 11 further comprised of a plurality of cable-like
strands and wherein each strand is comprised of a plurality of wires some of which are of the
first portion and some of which are of the second portion.

16.(amended) The stent of claim 11 wherein the alloy composition[s] is about
50Ni/50Ti atomic weight percent.

REMARKS

Abstract

A substitute copy of the abstract as filed is provided herewith.

Informalities

A foregoing amendment to the specification at page 3, line 23 is believed to
obviate the stated objection to the specification.

Claims Rejections: 35 U.S.C. §112

The preamble of claim 1 has been amended in accordance with the Examiner's
suggestions in a clarifying manner believed to remove the basis for the §112 rejection of claim
1 and claims 2-19 depending therefrom.

Claim 1 has been clarified by removing the word "further" from line 9 thereof.

Claims 3, 5, 6 and 9 have been amended in accordance with the Examiner's